Public Works (1908) Department.

(1171)

Confidential
G.O., No. 242-I

DATED 4-7-1908

[Despatch Abstract.]

Water-Supply under the Periyar Project. Passing orders on the question of inadequate.

Dr/RK

Indexed

6/7/08

[P. W. 2 (a). 2,000—8-7-07.]

BACK PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date
1							

FURTHER PAPERS.

G.O.	No.	Department	Date.	G.O.	No.	Department	Date

Confdl

CURRENT No. 6104A
PASSED ON BY
R. C.
U. R. C. } 4.7.08
REF.
R. K.
D. O.

For original of the G.O. and of the note connected therewith please see Confdl.

DEPARTMENT.

CURRENT No.

Received 190 , *Registered* 190 .

Abstract.

Water-supply under the Periyar Project.-

Passing orders on the question of inadequate -------.

G.O., No. 1687 **, Revenue, dated** 16th June 1908.

Confdl

ENCLOSURES.
No.

READ the following papers:—

G.O.No.1420, dated 31st December 1904.

Memo. To the Superintending Engineer, VI Circle, ~~Memo~~ No.5155, dated 23rd December 1907.

~~From~~ To the Superintending Engineer, VI Circle, No.5185, dated 26th December 1907.

From the Superintending Engineer, VI Circle, No.10 C.E.Camp, dated 27th December 1907.

From the Superintending Engineer, VI Circle, No.2 C.E. Camp, dated 3rd January 1908.

To the Superintending Engineer, VI Circle, Memo. No.251, dated 16th January 1908.

From the Superintending Engineer, VI Circle, No.39 C.E., dated 21st January 1908.

Note by the Chief Engineer for Irrigation, dated 7th February 1908.

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Note by the Chief Engineer for Irrigation dated 7th Febry.1908 on inadequate supply of water for irrigation under Periyar.

The difficulty which has arisen in Periyar this year is due to the fact that no serious attempt has hitherto been made to take advantage of the construction of the new ~~xegxlatkxs~~ regulators across the Vaigai at Peranai. The main channel has silted up, up to a depth ~~verifying~~ varying 2 to 4 ft in from the first half mile and with water level with the top of the shutters of the regulator it was during the irrigation season only possible to get 1,000 cusec down the main channel against 1838 as designed. The -- channel and river bed above the head sluice should have been cleared and also the old anicut removed to the level of the -- cill of the new regulator until this is done it is impossible to say how far the regulator will be effective but it appears to the undersigned that the sand difficulty will be very largely decreased if not altogether removed, when these improvements recently ordered have been carried out.

Although the flow down the main channel was thus diminished the Executive Engineer attempted to supply a very large area - which in the case of the kodai crop was scattered through out the ayacut. How difficult the task which the Executive Engineer set himself was is shown by the figures given by Mr. Gillman in para 8 of his note on Periyar irrigation. The duties -- attained during September assuming a supply of 1,000 cusecs in the main channel were

Period	ending	7th	September	82
"	"	16th	"	92-8
"	"	23rd	"	110-7

In considering these figures we have to remember (a) that the areas shown do not include those being ploughed for cultivation when a large quantity of water is used and (b) The Kodai crop of about 45,000 acres is approaching maturity and -

very little water. The duty was therefore much higher than shown in August and is not so disproportionately high in -- September when little or no water xxx wanted for the Kodai crop.

The water supplied was however but little assisted by -- rainfall and it must undoubtedly have been difficult to comply with all demands. Steps have now been taken to clear the head of the main canal. The shutters of the regulator have been -- temporarily raised and it is practically certain that during next irrigation season it will be possible whenever water is available to pass 1838 cusecs down the main canal.

The undersigned agrees with Mr. Gillman in the recommendations (b) (c) & (d) in para 15 of his note with which the local P.W.D. officers concur.

To deal with this question completely it would have been right here to discuss the area which should for the present be fixed as an ultimate area under existing conditions of supply. This point has been referred to the Superintending Engineer VI Circle, in this office No.1894 dated 17th May 1907 and as his reply has not yet been received its consideration will be deferred.

There remains the question of the method of supply hitherto used and that to be adopted in future.

The reports received from the Superintending and Executive Engineers are by no means clear on this point, and it may be well first to define more clearly the different systems alluded to. They are.-

(1) Continuous flow. This is a system whereby water flows continuously in the channels at F.S.L. when water is required and available. When the supply fails the issue from the sluices is reduced proportionately throughout the channel by regulating the sluices supplying the field channels. This is the system xx for which the channels were designed and which is generally -- adopted in our large irrigation systems of Godavari and Ki

(2) Rotation by distributaries thus consists in closing the -- head sluices of branch channels in turns When the head sluice of a branch channel is open all the sluices in that channel are also open during the whole period of the turn.

(3) Rotation by internal turns. In this system continuous flow is maintained in branch channels but the minor channels or -- field channels are closed in turn.

There are many arguments to be adduced for and against -- systems (1) and (2) but all officers of experience are united in condemning No.(3) which is most difficult to work and -- affords endless opportunity for corruption.

It should be noted that there is a distinction between a system of turns and their occasional temporary adoption under the stress of grave necessity.

Neither the Superintending Engineer nor Executive Engineer has clearly reported what was the system in force prior to -- 1905-06 but the undersigned believes that it was one of continuous flow with occasional resort to temporary internal turns when water ran short. For this system the Executive Engineer appears to have attempted to substitute one of turns by distributaries but he himself in paras 5 and 6 of his letter No. 486 dated 5th January 1908 gives very good reasons for not -- being able to do this satisfactorily. In fact nearly the whole os his letter consists of arguments to show that a system of continuous flow is best. He himself states that with a system of turns it is necessary to adhere to them rigidly and then goes on to prove that in the Periyar this is impossible. He states that with a system of turns it is possible for him to maintain a better control over the distribution but he does not produce any facts or arguments to prove it. The undersigned therefore agrees with the Collector that a system of turn should be -- abandoned or at any rate given a fair trial which does not appear to have been the case at present.

It

It is believed that with the improved supply available - next year and with a more concentrated area of kodai crop there should be no difficulty of ~~xx~~ distribution under this system.

The Ag.Chief Engineer for Irrigation wishes to give Mr. deChazal every credit for the energy he has displayed in -- attempting to extend the irrigated area in the Periyar and for the care which he must have taken to distribute water to so - large an area as he states that he has supplied this year. It is however considered that he would have acted more wisely if he had first submitted proposals of improving the supply of the main channel, whose defective condition appears to have been the main source of trouble.

7th February 1908.

(sd) H. E. C l e r k.
Ag.Chief Engineer for Irrigation.

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ORDER.

The foregoing papers relate to certain complaints which Government have received regarding the inadequate supply of water in the area irrigated under the Periyar system, the deficiency being attributed partly to the system of irrigation by turns which was introduced in 1907, and partly to the wide distribution of the double crop area under the Periyar system.

2. Orders on the subject of the turn system will be issued in the Public Works Department (Irrigation). As regards the regulation of the double-crop area, the Government ~~ahve~~ have carefully considered the question in consultation with the Collector, the Board of Revenue and the Chief Engineer for Irrigation and have come to the conclusion that in order to prevent any risk of the levy of second crop assessment on lands to which a sufficient supply of water for second crop cultivation cannot be made, the area now commanded by the Periyar system should be divided into two distinct areas, "assured" and "non-assured", the one including lands to which water for two crops can with certainty be supplied in any season and the other those lands to which such supply is uncertain. In the "assured" area no change in the registration of lands registered as double crop wet will be necessary; but in the "non-assured" area such lands may on the application of the ryots be transferred to single-crop wet. Every such transfer will, however, be subject to the condition that it will be at any time open to the Government to revise the limits of the assured and non-assured areas and to re-transfer to double crop wet any land transferred under these orders to single crop, if an assured supply sufficient for two crops can hereafter be made available for such land.

3. The Collector should be directed to submit proposals for carrying out the division of the Periyar ayakat into assured

and non-assured in accordance with these orders in consultation with the local officers of the Public Works Department.

(True Extract)

A. G. Cardew

Secretary to Government.

To the Collector of Madura.

,, Board of Revenue, Land Revenue.

,, Board of Revenue, Revenue Settlement.

,, Public Works Department (Irrigation).

S.A.R.

1,000—8-7-07.

P. W. D., Irrigation Branch.

Subject :—

NOTES

CONNECTED WITH

G.O., No. I., dated 190 .

Notes edited.

Water supply under the Periyar Project

PUBLIC WORKS DEPARTMENT,

IRRIGATION BRANCH.

G.O. No. 1687 Confl. dy 16 June 1908

Revenue dept

Issue (G.O. No 1687 Confl Rev. dy 16. 6. 08) and then send para 2 to P.W.D.(I) for issue with this Note file in original for reference.

A.G.C.
16. 6. 08

⊗ For original of this G.O. with Notes please see linked file

To Under Secretary

The G.O. has issued omitting para 2 as directed. A copy of para 2 of the draft is submitted. This together with the original file may be sent to P.W.D.(I) and that dept. may also be asked to return the original of the G.O. (with Notes) issued in Revenue for being printed

M.G.
18. 6. 08

F. Noyce
19. 6. 08

P.W.D. (Irrgn) u.o.

2

Dep^l

Submitted that the draft order may be circulated to H.E. the Governor and the Hon'ble Mr. Stokes before issue

B.C.H.
22.6.08

Note for His Excellency & the Hon'ble Mr Stokes

Please see linked file

The file relates to reported inadequate supply of water for irrigation in the Periyar system, especially the double crops lands, & a complaint made by Sir V. Bhashyam Iyengar about a system of turns introduced last year by the Ex. Engr. Mr D. C.

The subject has been dealt with in Rev & it has been decided to divide the Periyar area into "assured" & "non assured" areas which will enable the double crops area to be more concentrated & make it easier to supply.

This proposal was made by the then Sup. Engr (Mr Keeling) but was not agreed to by Rev.

As the question of "turns" relates to the P.W.D. who are in charge of the water regulation Rev agrees to that portion of the order relating to this subject being issued separately by P.W.D. I and [illegible]

3

order is submitted for ~~app~~ approval

[initials]
22/6/08

[initials]
24.6.08

[initials]
25.6.08

CIRCULATED IN
Cempt
~~Box~~ No. 4
~~Bag~~ Cr 23. 6. 08

D9

The draft order will now issue.
The linked file may be returned to the
Rev. dept as requested

[initials]
26.6.08

11

2,880—12-2-08.

REVENUE DEPARTMENT.

Tabling Abstract.

Cross references.

Water supply under the Periyar Project :—

Passing orders on the question of inadequate —

READ

Go No. 1420, dated 31-12-04 (Abstract).

Read again

To the Supt. Engr. VI Cir c memo No. 5155 dated 23.12.07.

To the " 5155 — 26.12.07

Frm. " 10 C.E Camp. 27.12.07

Frm " 2 C.E Camp 3.1.08

To " 251 " 16.1.08

Frm " 39. C.E. 21.1.08.

Note by E.I dt 7-2.08.

G.O. No 1687 Rev Confl dt 16.6.08

(Confidential) ORDER No 2429, dated 4-7-1908.

For original of the G.O. and the notes connected therewith please see locker file

?

Order No. 2429 dated 4-7-08
Communicated to the officers concerned

2. As regards the system of irrigation by turns, it is reported that it was introduced temporarily owing to the accumulation of silt in the Main Canal, the non-removal of the old head sluice at the Peranai and the consequent diminution of water supply under the canal. As these defects are being remedied during the present closure of the Lake and as the Periyar system was designed for continuous flow the Govt. consider that it should continue to be worked generally on that system with effect from the re-opening of the Lake at the beginning of June next. They further observe that a necessary condition for the successful working of any system of turns is that it shall be rigidly enforced and shall not be modified at the discretion of any subordinate. If the local officers consider that it is absolutely necessary to resort to the turn system, as a temporary expedient, in times of deficient supply, this condition must be observed. It must be distinctly understood that any such resort to a turn system must be only on grounds of proved necessity and as a temporary expedient, and that the system of continuous flow is, as a general rule, to be followed.

24.6.08

25.6.08

DESPATCHED
4 JUL 1908

To
The Chief Engr for Irrgn
" Supg Engr 6th Circle
" Bd. of Rev. Rev Sett
" Rev. Dept

(Intd.) A.G.C.
30.6.08

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